

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior version and listings of claims in the application:

LISTING OF CLAIMS:

1-14. (Cancelled).

15. (Currently amended) An olefinic thermoplastic elastomer obtained by melting and kneading ingredients, the ingredients including:

a graft copolymer composed of an olefin homo/co-polymer segment formed from a nonpolar α -olefin monomer, and a vinyl polymer segment formed from vinyl monomers, the vinyl monomers including at least styrene and butyl acrylate, wherein the graft copolymer has a polyphase structure in which one of the olefin homo/co-polymer segment and the vinyl polymer segment form a dispersed phase in the other with a particle size of 0.01 to 1 μm , wherein the nonpolar α -olefin monomer forming the olefin homo/co-polymer segment is one of an ethylene-propylene block copolymer with ethylene content of 10 wt% or less and an ethylene-propylene random copolymer with ethylene content of 5 wt% or less;

an acrylic rubber formed from a monomer mixture in which 10 to 90 wt% of methoxyethyl acrylate, 5 to 85 wt% of alkyl acrylate, 5 to 15 wt% of acrylonitrile, and 0.1 to 10 wt% of allyl methacrylate are contained as main ingredients;

0.01 to 10 wt% of a crosslinking agent with respect to the total amount of the graft copolymer and the acrylic rubber; and

0.01 to 10 wt% of a co-crosslinking agent with respect to the total amount of the graft copolymer and the acrylic rubber.

16. (Previously presented) The olefinic thermoplastic elastomer according to claim 15, wherein the vinyl polymer segment has a crosslinkable functional group.

17. (Previously presented) The olefinic thermoplastic elastomer according to claim 15, wherein the ratio by weight of the graft copolymer to the acrylic rubber is 95:5 to 5:95.

18. (Previously presented) The olefinic thermoplastic elastomer according to claim 15, the ingredients further including an olefin polymer or olefin copolymer formed from a nonpolar α -olefin monomer.

19. (Previously presented) The olefinic thermoplastic elastomer according to claim 18, wherein the olefin polymer or olefin copolymer formed from a nonpolar α -olefin monomer is an oil-resistant ethylene-propylene copolymer.

20. (Previously presented) The olefinic thermoplastic elastomer according to claim 15, the ingredients further including at least one additive selected from the group consisting of a plasticizer, an extender, a lubricant, and an antioxidant.

21. (Previously presented) The olefinic thermoplastic elastomer according to claim 15, the ingredients further including at least one of other thermoplastic resins or rubbers.

22. (Currently amended) An olefinic thermoplastic elastomer obtained by melting and kneading ingredients, the ingredients including:

a grafting precursor composed of particles of an olefin homo/co-polymer formed from a nonpolar α -olefin monomer, and a copolymer of vinyl monomers and a radically polymerizable organic peroxide, the copolymer being dispersed in the particles, the vinyl monomers including at least styrene and butyl acrylate, wherein the nonpolar α -olefin monomer forming the olefin homo/co-polymer segment is one of an ethylene-propylene block copolymer with ethylene content of 10 wt% or less and an ethylene-propylene random copolymer with ethylene content of 5 wt% or less;

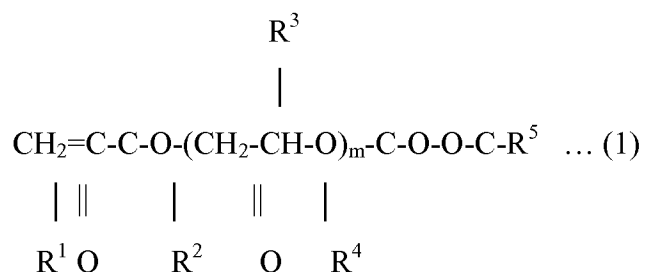
an acrylic rubber formed from a monomer mixture in which 10 to 90 wt% of methoxyethyl acrylate, 5 to 85 wt% of alkyl acrylate, 5 to 15 wt% of acrylonitrile, and 0.1 to 10 wt% of allyl methacrylate are contained as main components;

0.01 to 10 wt% of a crosslinking agent with respect to the total amount of the grafting precursor and the acrylic rubber; and

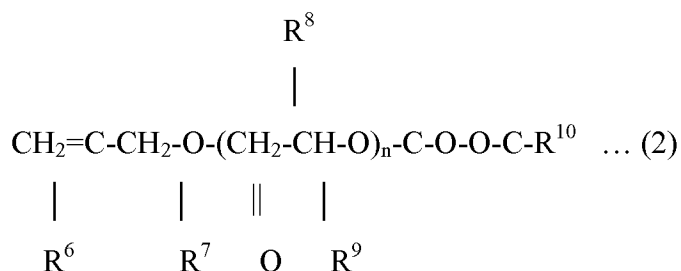
0.01 to 10 wt% of a co-crosslinking agent with respect to the total amount of the grafting precursor and the acrylic rubber.

23. (Previously presented) The olefinic thermoplastic elastomer according to claim 22, wherein the grafting precursor is obtained by immersing the vinyl monomers, the radically polymerizable organic peroxide, and a radical polymerization initiator in the particles of the polymer and copolymerizing the vinyl monomers and the radically polymerizable organic peroxide.

24. (Previously presented) The olefinic thermoplastic elastomer according to claim 22, wherein the radically polymerizable organic peroxide is a compound represented by the formula (1) or (2):



wherein R¹ represents hydrogen atom or a C₁ to C₂ alkyl group, R² represents hydrogen atom or methyl group, R³ and R⁴ independently represent a C₁ to C₄ alkyl group, R⁵ represents a C₁ to C₁₂ alkyl group, a phenyl group, an alkyl-substituted phenyl group, or a C₃ to C₁₂ cycloalkyl group, and m is an integer of 1 or 2; and



wherein R⁶ represents hydrogen atom or a C₁ to C₄ alkyl group, R⁷ represents hydrogen atom or methyl group, R⁸ and R⁹ independently represent a C₁ to C₄ alkyl group, R¹⁰ represents a C₁ to C₁₂ alkyl group, a phenyl group, an alkyl-substituted phenyl group, or a C₃ to C₁₂ cycloalkyl group, and n is an integer of 0, 1, or 2.

25. (Previously presented) The olefinic thermoplastic elastomer according to claim 22, wherein the copolymer of vinyl monomers and a radically polymerizable organic peroxide has a crosslinkable functional group.

26. (Previously presented) The olefinic thermoplastic elastomer according to claim 22, wherein the ratio by weight of the grafting precursor to the acrylic rubber is 95:5 to 5:95.

27. (Previously presented) The olefinic thermoplastic elastomer according to claim 22, the ingredients further including an olefin polymer or olefin copolymer formed from a nonpolar α -olefin monomer.

28. (Previously presented) The olefinic thermoplastic elastomer according to claim 27, wherein the olefin polymer or olefin copolymer formed from a nonpolar α -olefin monomer is an oil-resistant ethylene-propylene copolymer.

29. (Previously presented) The olefinic thermoplastic elastomer according to claim 22, the ingredients further including at least one additive selected from the group consisting of a plasticizer, an extender, a lubricant, and an antioxidant.

30. (Previously presented) The olefinic thermoplastic elastomer according to claim 22, the ingredients further including at least one of other thermoplastic resins or rubbers.

31. (Currently amended) A molding obtained by molding an olefinic thermoplastic elastomer obtained by melting and kneading ingredients, the ingredients including:

a graft copolymer composed of an olefin homo/co-polymer segment formed from a nonpolar α -olefin monomer, and a vinyl polymer segment formed from vinyl monomers, the vinyl monomers including at least styrene and butyl acrylate, wherein the graft copolymer has a polyphase structure in which one of the olefin homo/co-polymer segment and the vinyl polymer segment form a dispersed phase in the other with a particle size of 0.01 to 1 μm , wherein the nonpolar α -olefin monomer forming the olefin homo/co-polymer segment is one of an ethylene-propylene block copolymer with ethylene content of 10 wt% or less and an ethylene-propylene random copolymer with ethylene content of 5 wt% or less;

an acrylic rubber formed from a monomer mixture in which 10 to 90 wt% of methoxyethyl acrylate, 5 to 85 wt% of alkyl acrylate, 5 to 15 wt% of acrylonitrile, and 0.1 to 10 wt% of allyl methacrylate are contained as main ingredients;

0.01 to 10 wt% of a crosslinking agent with respect to the total amount of the graft copolymer and the acrylic rubber; and

0.01 to 10 wt% of a co-crosslinking agent with respect to the total amount of the graft copolymer and the acrylic rubber.

32. (Previously presented) The molding according to claim 31, wherein the molding is a hose or a seal.

33. (Currently amended) A molding obtained by molding an olefinic thermoplastic elastomer obtained by melting and kneading ingredients, the ingredients including:

a grafting precursor composed of particles of an olefin homo/co-polymer formed from a nonpolar α -olefin monomer, and a copolymer of vinyl monomers and a radically polymerizable organic peroxide, the copolymer being dispersed in the particles, the vinyl monomers including at least styrene and butyl acrylate, wherein the nonpolar α -olefin monomer forming the olefin homo/co-polymer segment is one of an ethylene-propylene block copolymer with ethylene content of 10 wt% or less and an ethylene-propylene random copolymer with ethylene content of 5 wt% or less;

an acrylic rubber formed from a monomer mixture in which 10 to 90 wt% of methoxyethyl acrylate, 5 to 85 wt% of alkyl acrylate, 5 to 15 wt% of acrylonitrile, and 0.1 to 10 wt% of allyl methacrylate are contained as main components;

0.01 to 10 wt% of a crosslinking agent with respect to the total amount of the grafting precursor and the acrylic rubber;

0.01 to 10 wt% of a co-crosslinking agent with respect to the total amount of the grafting precursor and the acrylic rubber.

34. (Previously presented) The molding according to claim 33, wherein the molding is a hose or a seal.

35. (Previously presented) The olefinic thermoplastic elastomer according to claim 15, wherein the vinyl monomers further include hydroxypropyl methacrylate.

36. (Previously presented) The olefinic thermoplastic elastomer according to claim 22, wherein the vinyl monomers further include hydroxypropyl methacrylate.

37. (Previously presented) The molding according to claim 31, wherein the vinyl monomers further include hydroxypropyl methacrylate.

38. (Previously presented) The molding according to claim 33, wherein the vinyl monomers further include hydroxypropyl methacrylate.